

2635-0

NPIC/D-273/70

29 OCT 1970

MEMORANDUM FOR: Deputy Director for Intelligence *EWB*

SUBJECT : Educational Grant Program for \$15,000 to  
Rochester Institute of Technology (RIT)

1. This memorandum requests approval for continuation of the subject program. The specific request is stated in paragraph 6.

2. In 1966, NPIC funded an educational grant in photographic science to RIT for \$14,500. It provided support to students in this field for the preparation of theses for bachelor's and master's degrees. The original purpose for this program persists today; namely, to encourage students in the photo-sciences to choose more sophisticated and comprehensive thesis projects than they might otherwise select because of limitations imposed by personal finances. Other purposes were to acquire training and consultation from the RIT faculty at no charge for their time, and to recruit grant recipients as future NPIC officers. The grant has been renewed each year since its inception, being increased to the present \$15,000 level in FY-69. Our experience shows this general level to be adequate. From the beginning this has been an overt program; our grant awards, together with Agency association, have been announced by RIT for the public record. There have been no unfavorable results.

3. Annually the grant has supported an average of nine students across seven thesis topics. The FY-71 program will provide similar support. Thesis research topics are chosen by the students with the approval of a Faculty Board. Our Project Officer coordinates with the Board to ensure that approved thesis problems are related to Center interests. The basic scientific nature of academic theses limits predictions on how--and more particularly when--knowledge gained can be put to practical use. This research often provides glimpses of problems or techniques that can have future impact on Center activities. Examples from the FY-70 program included a paper

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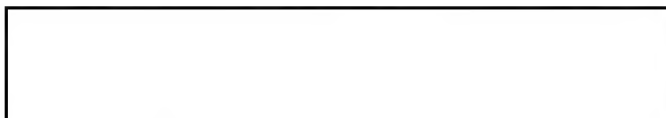
which describes an experiment in which poor correlation was discovered in resolution measurements made using common bar target designs. This alerted us to a potential requirement for a Center-defined standard target for such measurements. A second paper described a computerized approach to correlating object color to image color for infrared color film. This film, which finds use in camouflage detection, distorts image color to permit a visual presentation of infrared reflectance from the object. This was an attempt to reduce confusion brought on by such deliberately color-distorted photography and to promote PI acceptance of this material. A final example was a paper in which a monobath photo development process was investigated to determine its ability to produce image edge enhancement. This work augments an in-house program directed toward producing edge enhancement through viscous processing. An approach using a viscous monobath is an intriguing path for investigation implicit in this thesis. Thesis research relates to the Center's R&D program mainly through the Reproduction, and the Image Analysis and Manipulation Categories. In addition to thesis research, a minimum of three training seminars given by the RIT faculty are held at NPIC. This latter facet of the Grant Program is closely coordinated with the Applied Photo-Science Division. This is a low risk program.

4. RIT continues to be recommended as the recipient of this grant because its School of Photographic Arts and Sciences is the largest and best equipped in the free world having some 219 dark rooms, 55 studios, and 69 labs and support areas. Its faculty is highly respected. To date, we have two former grant recipients, [redacted] as NPIC officers; others have served as co-op students. RIT proposes that we continue the grant in the amount of \$15,000 to cover the academic year ending 30 June 1971. We believe the program is of sufficient value to continue at this modest level. We shall scrutinize FY-71 results before deciding to carry the program beyond that time.

5. [redacted] will serve as Project Officer for this program. [redacted] is appropriate for this work.

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6. It is requested that expenditure of \$15,000 from  
object class 41 FY-71 funds be approved to continue this  
program through June 1971.



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ARTHUR C. LUNDAHL  
Director  
National Photographic Interpretation Center

Attachments:

1. Proposal
2. Form 2420

APPROVED: \_\_\_\_\_  
R. J. SMITH  
Deputy Director for Intelligence

\_\_\_\_\_  
Date

Distribution:

- Original - NPIC/SS/SC&PB (After approval)  
1 - DDI

